

PATENT

Attorney Docket No. D0932-403

Listing of Claims:

1. (Currently amended) A liquid sorbent material comprising:
a plurality of first fibers forming a fiber component; and
plastic-containing bonding fibers, said fiber component bonded together by a portion of the plastic of said plastic-containing bonding fibers, wherein said liquid sorbent material comprises 2 to 50 wt. % of said plastic-containing bonding fibers.
2. (Original) The liquid sorbent material of claim 1, wherein said fiber component and the plastic-containing bonding fibers are uniformly blended.
3. (Original) The liquid sorbent material of claim 1, wherein said plurality of first fibers comprise inorganic fibers, organic fibers, or both.
4. (Original) The liquid sorbent material of claim 1, wherein said plurality of first fibers comprise inorganic fibers comprising scrap rotary glass fibers, virgin rotary glass fibers, or both.
5. (Original) The liquid sorbent material of claim 1, wherein said plurality of first fibers comprise organic fibers comprising cleaned scrap cotton fibers, wood fibers, hemp fibers, cellulose fibers, or a combination thereof.
6. (Original) The liquid sorbent material of claim 1, wherein said liquid sorbent material has a substantially uniform density throughout its volume.
7. (Original) The liquid sorbent material of claim 6, wherein said density of the liquid sorbent material is about 24 to 112 kg/m³.
8. (Original) The liquid sorbent material of claim 1, wherein said density of the liquid sorbent material is about 32 to 64 kg/m³.
9. (Original) The liquid sorbent material of claim 1, wherein said liquid sorbent material has a gram weight of about 500 to 3600 gm/m².

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10. (Original) The liquid sorbent material of claim 1, wherein the liquid sorbent material has a gram weight of about 600 to 3000 gm/m².
11. (Original) The liquid sorbent material of claim 1, wherein said liquid sorbent material has a thickness of about 6 to 89 mm.
12. (Original) The liquid sorbent material of claim 4, wherein said inorganic fibers have an average diameter of about 0.5 to 10 micrometers.
13. (Original) The liquid sorbent material of claim 4, wherein said inorganic fibers have an average diameter of about 1 to 7 micrometers.
14. (Original) The liquid sorbent material of claim 4, wherein said inorganic fibers have an average diameter of about 2 to 6 micrometers.
15. (Original) The liquid sorbent material of claim 4, wherein said inorganic fibers have an average length of no more than 1cm.
16. (Original) The liquid sorbent material of claim 4, wherein said inorganic fibers have an average length of about 2 to 3 mm.
17. (Canceled)
18. (Original) The liquid sorbent material of claim 1, wherein said liquid sorbent material comprises about 5 to 30 wt. % of said plastic-containing bonding fibers.
19. (Original) The liquid sorbent material of claim 1, wherein said liquid sorbent material comprises about 10 to 20 wt. % of said plastic-containing bonding fibers.
20. (Original) The liquid sorbent material of claim 1, wherein said plastic-containing bonding fibers comprise bi-component fibers.

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21. (Original) The liquid sorbent material of claim 20, wherein said bi-component fibers are sheath-core, side-by-side, island-in-the-sea, or segmented-pie cross-section type.
22. (Original) The liquid sorbent material of claim 20, wherein said bi-component fibers comprise:
a core material; and
a sheath material, wherein said sheath material has a melting point temperature lower than the melting point temperature of said core material.
23. (Original) The liquid sorbent material of claim 22, wherein said core material and said sheath material are both thermoplastic polymers.
24. (Original) The liquid sorbent material of claim 22, wherein said core material is a mineral and said sheath material is a thermoplastic polymer.
25. (Original) The liquid sorbent material of claim 22, wherein said core material and said sheath material are same thermoplastic polymer but of different formulations.
26. (Original) The liquid sorbent material of claim 1, wherein said plastic-containing bonding fibers comprise mono-component thermoplastic polymer fibers.
27. (Original) The liquid sorbent material of claim 1, further comprising a quantity of hydrophilic sorbent particles dispersed throughout the liquid sorbent material.
- 28 - 35. (Canceled)